

Maximum Permissive Exposure

FCC ID: NHS-PR91W

Product Name: 10 Outlet smart surge protector rack with Wi-Fi and USB

Model No: PR-91W

1. According to FCC CFR 47 §1.1310, the criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b).

Table 1 Limits for Maximum Permissible Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (Minutes)
(A) Limits For Occupational / Control Exposures (f = frequency)				
30-300	61.4	0.163	1.0	6
300-1500	...	...	f/300	6
1500-100,000	...	...	5.0	6
(B) Limits For General Population / Uncontrolled Exposure (f = frequency)				
30-300	27.5	0.073	0.2	30
300-1500	...	...	f/1500	30
1500-100,000	...	...	1.0	30

POWERTECH INDUSTRIAL CO., LTD. declares that the product described above has been evaluated and found to comply with the RF exposure limits for humans, as specified based on ANSI/FCC recommendation.

RF Exposure Calculations:

$$S = (P * G) / (4 * \pi * r^2) \text{ or } r = \sqrt{(P * G) / (4 * \pi * S)}$$

Where :

WLAN 2.4G

Based on safety distance (r) **20cm**, the antenna gain (G) is **1.585Numerical**, and the highest power output (P) is **158.489mW**, the power density (S) is **0.049976mW/cm²**

Based on safety distance (r)=	20 cm
Highest Power Output (P)=	22 dBm = 158.489 mW
Antenna Gain (G)=	2.0 dBi = 1.585 Numerical
MPE (S) = (P*G) / (4*π*r ²) =	= (158.489*1.585)/(4*π*20²)= 0.049976 mW/cm²

BLE

Based on safety distance (r) **20cm**, the antenna gain (G) is **1.585Numerical**, and the highest power output (P) is **3.981mW**, the power density (S) is **0.001255mW/cm²**

Based on safety distance (r)=	20 cm
Highest Power Output (P)=	6 dBm = 3.981 mW
Antenna Gain (G)=	2.0 dBi = 1.585 Numerical
MPE (S) = (P*G) / (4*π*r ²) =	= (3.981*1.585)/(4*π*20²)= 0.001255 mW/cm²

2. MPE Calculation for Simultaneous

WLAN 2.4G (mW/cm ²)	BLE (mW/cm ²)	Total (mW/cm ²)	Limit (mW/cm ²)
0.049976	0.001255	0.051231	≤ 1

Sincerely Yours,



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